

Application No. 09/762,779
Paper Dated December 22, 2004
Reply to Office Action of August 23, 2004
Attorney Docket No. 702-010166

AMENDMENTS TO THE SPECIFICATION

Please insert the paragraph beginning at page 2, line 21 with the following rewritten paragraph:

-- ~~According to a first aspect of the present invention there is provided a device according to any of the claims 1 to 8. The present invention provides for a device that includes a substrate comprising a film of free electron metal consisting essentially of gold and a plasma layer comprising sulfur plasma deposited directly on the gold film of the substrate and defining a stable deposited plasma layer. The substrate can also consist essentially of gold.~~ --

Please insert this paragraph beginning at page 2, line 36 with the following new paragraph:

-- The process according to the second aspect of the present invention suitable for investigating reactions between interactive bio/chemical species by means of surface plasmon resonance spectroscopy that includes the steps of preselecting a free electron metal substrate, which metal substrate is suitable for allowing investigation by surface plasmon resonance spectroscopy. Further, the metal substrate is also suitable for investigating and sensing surface interactions by surface plasmon resonance spectroscopy. Next, a pre-selected first functional group species is arranged on the free electron metal substrate by means of plasma deposition, which first functional group species protects the free electron metal substrate from a second functional group species whose interaction with the plasma deposited first functional group species can be investigated, thereby preventing undesirable interactions between the free electron metal substrate and the second functional group species, and which first functional group species provides a desired functionality for the second functional group species. Subsequently, a second functional group species is arranged on the plasma deposited layer of the first functional group species, whereafter interaction between the first and second functional group species layers, can be investigated by means of surface plasmon resonance spectroscopy. Before being exposed to the second functional group species, a bio/chemical functional layer may be wet chemically

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arranged on the plasma deposited first functional group species layer, wherein the wet chemically arranged functional layer being pre-selected for its specificity for the second functional group species and for the prevention of non specific interactions with the second functional group species. --